



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6

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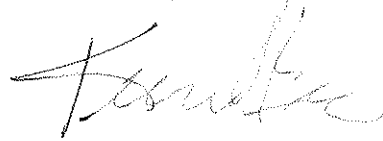
In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Bureau of Indian Affairs (BIA) Draft Environmental Impact Statement (Draft EIS) for the Management of Osage Nation Oil and Gas Resources. The purpose of the Draft EIS is to provide analysis on the impacts of the BIA lease and permit approval program and to facilitate the development of oil and gas in Osage County in an efficient manner that prevents pollution.

When a Draft EIS does not identify a preferred alternative, the EPA reviews and rates each alternative. Based on our review, the EPA rates the No-Action Alternative **EO-2**, "environmental objections – insufficient information." The "EO" rating is based on potential impacts to soils, geology, water, air quality, fish and wildlife, public and worker safety, and utilities. The "2" rating is based on a lack of detailed information in the Draft EIS concerning air, historical, cultural, and archaeological resources, environmental justice, noise, and climate change. EPA rates Alternative 1 (streamlined management) **EC-2**, "environmental concerns – insufficient information." The "EC" rating is based on potential impacts to soils, water, and fish and wildlife. The "2" rating is based on the lack of detailed information in the Draft EIS concerning air, historical, cultural, and archaeological resources, environmental justice, noise, and climate change. EPA rates Alternative 2 (upfront protective management) **LO-2**, "lack of objections – insufficient information." The "LO" rating signifies the Draft EIS review did not identify any environmental impacts requiring substantive changes. The "2" rating is based on the lack of detailed information in the Draft EIS concerning air, historical, cultural, and archaeological resources, environmental justice, noise, and climate change. The EPA Rating System Criteria is located at <http://www.epa.gov/compliance/nepa/comments/ratings.html>. EPA recommends that these issues be addressed in the Final EIS. We have enclosed detailed comments which clarify our concerns.

EPA appreciates the opportunity to review the Draft EIS. Please send our office one copy of the Final EIS when it is electronically filed with the Office of Federal Activities. If you have any

questions or concerns, I can be reached at 214-665-7438, or contact Keith Hayden of my staff at hayden.keith@epa.gov or 214-665-2133.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kimeka Price".

Kimeka Price
Chief, NEPA Program
Special Projects Section

Enclosures

**DETAILED COMMENTS ON THE
BUREAU OF INDIAN AFFAIRS
DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE MANAGEMENT OF OSAGE NATION OIL AND GAS RESOURCES**

BACKGROUND: The Osage planning area consists of approximately 1,474,500 acres of subsurface mineral interest in Osage County, Oklahoma. Under the Osage Allotment Act of 1906, the United States reserved all rights to the mineral estate in Osage County for the benefit of the Osage. The mineral estate is held in trust, and the BIA approves oil and gas leases, applications for permits to drill (APDs), and other site-specific permit applications in Osage County. The federal actions are needed for the BIA to fulfill a portion of its trust responsibility to the Osage and to promote the development of the mineral estate. The BIA also intends to streamline the permitting process and provide certainty to developers about permit conditions and restrictions.

GENERAL COMMENTS

EPA recognizes that the Draft EIS is programmatic in nature and that oil and gas activities occurring on Osage land will require subsequent NEPA analysis. It will also require more information gathering and consultation with federal, state, and local resource agencies. None of the actions described in the Draft EIS will result in environmental impacts. However, the Draft EIS alternatives differ by the resource conservation measures (RCM's) attached to them; which outline how each alternative will seek to protect Osage resources. EPA's comments will focus on the environmental impacts that will result from selecting each alternative and associated RCM's.

ALTERNATIVES

No-Action Alternative

For each of the individual resources discussed in the environmental consequences chapter it is unclear if the No-Action alternative does not have RCM's, has RCM's, or whether the choice to apply RCM's will be made on each permitting decision. This lack of clarity makes it difficult to assess the potential impacts to each resource. Many of the RCM's that are associated with Alternatives 1 and 2 are a part of basic consultation with federal agencies, and not requiring them as part of the no-action alternative would potentially violate existing laws. In general, the No-Action alternative does not protect resources on Osage land. Applying RCM's on a case-by-case basis could lead to fragmented decision making and provide a less coherent management plan for all of Osage County.

Alternative 1

This alternative provides an increased level of resource protection compared to the No-Action alternative. In addition to more robust RCM's, Alternative 1 provides streamlined permitting opportunities resulting from not having to consult with other resource agencies on each individual oil and gas action. This will be accomplished through consulting with agencies on a county-wide basis.

Alternative 2

This alternative is the most protective of all Osage Resources. In addition to all of the resource protections included with Alternative 1, Alternative 2 adds additional RCM's and consultation requirements. EPA supports Alternative 2 being designated the preferred alternative.

TOPOGRAPHY, GEOLOGY, PALEONTOLOGY, AND SOILS

The effects of the No-Action Alternative versus Alternatives 1 and 2 could result in increased erosion, destruction of paleontological resources, and a potential increase in induced earthquakes as a result of not consulting with BIA for seismicity impacts. Either Alternative 1 or 2 would apply resource conservation measures (RCM's) to all oil and gas activities. This would provide more certainty in the permitting process and reduce fragmented implementation of RCM's decided on a case-by-case basis. Implementing Alternative 2 over Alternative 1 would require a closed-loop system and would be more protective of resources from saline water and drilling fluids releases.

WATER RESOURCES

The no-action alternative would implement resource protections on an individual project basis, and could result in impacts to Osage water resources. Alternative 1 adds water resources protections by ensuring a 200 foot buffer around "established watering places" and encouraging the use of recycled water. In addition to the protections for Alternative 1, Alternative 2 would add protections for groundwater wells, grasslands, and RCM's to prevent drilling fluids and chemical runoff from entering water systems.

AIR QUALITY

Section 3.4 and 4.4.2

Section 3.4 offers a discussion on the regulatory environment and background information regarding air quality. Section 4.4.2 states "the air quality analysis is based in the assumption that air quality impacts can be either localized or regional, depending on the pollutant being analyzed." Additionally, it states the BIA would apply RCM's to oil and gas activities to ensure compliance with applicable laws and regulations. Further, Section 4.4.2 states for more information to see Section 3.4, but Section 3.4 has no specific information. EPA recommends the Draft EIS be more specific about what will be analyzed to determine local or regional compliance with air quality regulations.

It is not clear whether or not the only RCM related to air quality is RCM number 49 from Table 2-3 in Chapter 2. For each alternative, EPA recommends the Draft EIS provide a more specific description of which RCM's will be applied. For each RCM recommended, please quantify how that improves air quality and climate on some reasonable basis of evaluation (per flaring event, per hour etc.). As described in Section 4.4.3 "the degree to which air quality and climate would be impacted would depend on the degree to which the measure would limit venting and flaring." This description is overly vague. Additionally, it seems that the current RCM recommended is

not consistent with the NSPS Subpart OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution), which requires green completion or flaring. Venting is prohibited even in limited amounts.

FISH AND WILDLIFE

The No-Action Alternative would apply RCM's on an individual basis; which could result in fragmented protections for fish and wildlife. Alternative 1 states that noise control measures would reduce potential habitat avoidance. There are no specific noise control measures proposed or descriptions of how noise control measures would reduce impacts. Without quantitative or qualitative noise control information it is difficult to assess the benefits or impacts of instituting noise control measures. Alternatives 1 and 2 would avoid the creation of new crossings through or over aquatic features. Alternative 2 would reduce habitat fragmentation by siting infrastructure at the edges of habitat or near existing infrastructure. Alternative 2 would also avoid siting infrastructure on hilltops or ridges.

SPECIAL STATUS SPECIES

The Draft EIS indicates there are several threatened, endangered, or candidate species that are likely to be affected by oil and gas activities in Osage County. The Draft EIS states all alternatives would comply with the Endangered Species Act and Migratory Bird Treaty Act, but Alternative 2 has the most protective measures that include protecting habitat for candidate species, applying a buffer zone around leks, and reducing habitat fragmentation by limiting infrastructure to the edges of open prairie. The Draft EIS mentions formal consultation under Section 7 of the Endangered Species Act began with the United States Fish and Wildlife Service (USFWS) and that BIA sent USFWS a biological assessment (BA). EPA recommends the Final EIS include the BA and the response from USFWS in the form of a biological opinion.

HISTORICAL, CULTURAL, AND ARCHAEOLOGICAL RESOURCES

The Draft EIS has a description of the Tribal historic preservation officer (THPO) and state historic preservation officer (SHPO) consultation process, and a description of the various laws to protect Osage historical, cultural, and archaeological (HCA) resources. The Draft EIS does not contain any specific information about the types of HCA resources present on Osage land. There is no mention of previous or current HCA surveys conducted in Osage County. The Draft EIS states all alternatives would comply with the National Historic Preservation Act, and other laws to protect HCA resources, but there isn't any other information in the Draft EIS to support this statement. Alternative 1 would formalize protective measures by making them permit conditions. Alternative 2 would provide the same RCM's as Alternative 1, and add guidance on buffer zones. EPA recommends the Final EIS include a listing of HCA resources in Osage County, any previous surveys conducted, a plan to conduct current surveys to make impact determinations for HCA resources, and a detailed plan on what will occur if new HCA resources are discovered.

ENVIRONMENTAL JUSTICE

BIA did a good job identifying the NEPA requirements and the various regulations, but it does not appear BIA took the necessary measures to identify each Environmental Justice community and/or tribal reservation as required by the Executive Order 12898, nor undertake an analysis of the direct effects of the proposed project on low-income and minority populations. Under the Environmental Justice Section, BIA did not state if there were EJ communities and/or tribal reservations within Osage County.

Recommendations:

- EPA recommends that the Environmental Justice analysis be combined in one section with a concise discussion of all impacts (direct and indirect and reversible and irreversible effects and mitigations).
- EPA recommends that BIA define and discuss each EJ Community or District within Osage County, pursuant to Executive Order 12898;
- EPA recommends the Draft EIS include a concise discussion regarding the impact and mitigation on the water sources within the county and current and future impacts the project has on drinking wells per EJ community, district, or reservation;
- EPA recommends the Draft EIS include a concise discussion regarding the origin of the water to be utilized for the project, i.e. drilling process, and the adverse impact on each tribe and/or community; and
- EPA recommends a concise discussion be included in the Draft EIS regarding the current and potential impact of fracking, relative to earthquakes and aesthetics throughout Osage County.

PUBLIC HEALTH AND SAFETY

Alternative 1 states that safety plans and training for workers would reduce the risk of injury from hazardous material exposure. Also, signage and security practices would minimize risks to workers and the general public. Developing training and safety plans, having signage, and developing spill prevention plans are standard practice at any job site and required by law. These RCM's shouldn't be limited to just the action alternatives. Please add clarifying language to make sure all alternatives comply with basic work safety laws.

NOISE

Alternative 2 states that noise reduction measures would be required if noise is above a certain level, but never establishes a threshold or quantitative noise level when noise reduction is required. For all alternatives, the Draft EIS needs to state the level of noise that will be permissible, what reduction measures will be implemented if noise is above the permissible level, and how implementing noise reduction measures will bring noise below an established

threshold. Also, construction should be limited to daytime hours for all alternatives when near noise sensitive receptors.

LAND USE PLANS, UTILITIES, AND TIMBER HARVESTING

Alternative 1 would require lessees to identify existing underground and surface utility infrastructure to avoid damage to the utilities. Avoiding surface utilities and locating underground utilities before disturbing the ground is already a basic component of any construction project. This RCM should not be limited to Alternatives 1 and 2. EPA recommends adding clarifying language to make sure all alternatives in the Draft EIS implement basic safety and construction standards.

CLIMATE CHANGE

Greenhouse Gas Emissions (GHG)

There are GHG emissions associated with the production, transport, and combustion of the oil and natural gas proposed by the project. As stated in Chapter 3 of the Draft EIS “There are, however, applicable reporting requirements under the EPA’s Greenhouse Gas Reporting Program. These GHG emission reporting requirements, finalized in 2010 under 40 CFR, Part 98, require facility operators to develop and report annual methane and carbon dioxide emissions from equipment leaks and venting. Operators also must report emissions of carbon dioxide, methane, and nitrous oxide from flaring, combustion emissions from onshore production stationary and portable equipment, and combustion emissions from stationary equipment.” The Draft EIS does not contain any data or analysis of direct, indirect, or cumulative impacts from GHG emissions associated with the project. Even though this is a programmatic EIS and future oil and gas development amounts within Osage County may not be known, the Draft EIS should have included general oil and gas development estimates and their resultant GHG emissions. The Final EIS should disclose GHG amounts associated with past, current, and future oil and gas development within Osage County, and tie the GHG emissions to environmental impacts.

Because of the global nature of climate change, even where the ultimate end use of the oil and natural gas occurs outside the U.S., additional greenhouse gas emissions attributable to the project would affect the U.S. Consistent with NEPA and CEQ regulations, because any such emissions contribute to climate change impacts in the US, EPA recommends that you consider and disclose them in the Final EIS due to their reasonably close causal relationship to the project.

In addition, EPA recommends that the Final EIS describe measures to reduce GHG emissions associated with the project, including reasonable alternatives or other practicable mitigation opportunities and disclose the estimated GHG reductions associated with such measures. For example, using energy efficient equipment and incorporating methane leakage best practices. EPA further recommends that BIA work with the applicant to implement reasonable mitigation measures that would reduce or eliminate project-related GHG emissions.

Effects of Climate Change on Project Impacts

EPA recommends that the Final EIS describe potential changes to the Affected Environment that may result from climate change. Including future climate scenarios in the EIS would help

decision makers and the public consider whether the environmental impacts of the alternatives would be exacerbated by climate change. If impacts may be exacerbated by climate change, additional mitigation measures may be warranted.

Climate Change Adaptation

EPA recommends that you consider using climate adaptation measures based on how future climate scenarios may impact the project in the Final EIS. The National Climate Assessment (NCA), released by the U.S. Global Change Resource Program¹, contains scenarios for regions and sectors, including energy and transportation. Using NCA or other peer reviewed climate scenarios to inform alternatives analysis and possible changes to the proposal can improve resilience and preparedness for climate change.

¹ <http://nca2014.globalchange.gov/>